WHAT IS CLAIMED IS:

1. A radiographic imaging method using an apparatus comprising means for providing a source of radiation and means for detecting the radiation installed on a mobile support capable of movement with respect to means for supporting an object comprising:

driving the mobile support along a given movement with respect to the means for supporting the object;

processing a sequence of images of a region of the object, acquired by the means for detection during the movement of the mobile support with respect to the means for supporting the object to reconstitute a 3D model of the region, and

driving the mobile support so that it carries out the movement repetitively to form a periodically refreshed 3D model of the object.

- 2. The method according to claim 1 wherein the mobile support is driven along a sequence of half rotations, alternately in one direction and in the other direction, around the means for supporting the object.
- 3. The method according to claim 1 wherein the mobile support is driven so as to apply a repetitive conical movement of revolution to an axis passing through a focal point of the source and through a center of the means for detection.
- 4. The method according to claim 1 wherein the mobile support is driven following a continuous repetitive rotation movement around the means for supporting the object.
- 5. The method according to claim 1 wherein a sequence of 2D images is continuously memorized or stored, on a sliding window, corresponding to a number of images necessary for reconstitution of a 3D model, and processing is applied for continuous reconstitution of a 3D model on this sliding window.

- 6. The method according to claim 2 wherein a sequence of 2D images is continuously memorized or stored, on a sliding window, corresponding to a number of images necessary for reconstitution of a 3D model, and processing is applied for continuous reconstitution of a 3D model on this sliding window.
- 7. The method according to claim 3 wherein a sequence of 2D images is continuously memorized or stored, on a sliding window, corresponding to a number of images necessary for reconstitution of a 3D model, and processing is applied for continuous reconstitution of a 3D model on this sliding window.
- 8. The method according to claim 4 wherein a sequence of 2D images is continuously memorized or stored, on a sliding window, corresponding to a number of images necessary for reconstitution of a 3D model, and processing is applied for continuous reconstitution of a 3D model on this sliding window.
 - 9. A radiographic imaging device comprising: means for providing a source of radiation; means for detecting the radiation,

the means for providing radiation and the means for detecting radiation disposed on a mobile support capable of moving with respect to means for supporting an object on which the object can be placed;

means for control capable of driving the mobile support in movement with respect to the means for supporting the object;

means for processing capable of reconstituting and presenting a 3D model of an imaged region of the object, starting from a sequence of images acquired of the region by the means for detection during a given movement of the mobile support with respect to the means for supporting the object;

the means for control being programmed to control driving movement of the mobile support so that it carries out the movement repetitively; and

the means for processing forming a periodically refreshed 3D model.

- 10. The apparatus according to claim 9 wherein the means for control being programmed to drive the mobile support along a sequence of half-rotations alternately in one direction and in the other direction, around the means for supporting the object.
- 11. The apparatus according to claim 9 wherein that the means for control being programmed to drive the mobile support so as to apply a repetitive conical movement of evolution to an axis passing through a focal point of the source and through a center of the means for detecting.
- 12. The apparatus according to claim 9 wherein the means for control being programmed to drive the mobile support along a repetitive continuous rotation movement around the means for supporting the object.
- 13. The apparatus according to claim 12 wherein the mobile support comprises an electrical power supply with commutator / brush type means.
- 14. The apparatus according to claim 12 wherein the apparatus comprises optical connecting means through which the means for control and/or the means for processing exchange data with the source and/or means for detecting.
- 15. The apparatus according to claim 13 wherein the apparatus comprises optical connecting means through which the means for control and/or the means for processing exchange data with the source and/or means for detecting.
- 16. The apparatus according to claim 12 wherein the apparatus comprises means for making a radio frequency link through which the means for control and/or the means for processing exchange data with the source and/or means for detecting.
- 17. The apparatus according to claim 13 wherein the apparatus comprises means for making a radio frequency link through which the means for control and/or the means for processing exchange data with the source and/or means for detecting.

- 18. The apparatus according to claim 12 wherein the means for control and/or the means for processing exchange data with the source and/or the means for detection through brush / commutator means.
- 19. The apparatus according to claim 13 wherein the means for control and/or the means for processing exchange data with the source and/or the means for detection through brush / commutator means.
- 20. The apparatus according to claim 12 wherein the means for processing comprise:

means for continuously memorizing or storing a sequence of 2D images corresponding to a number of images necessary for reconstitution of a 3D model on a sliding window; and

means for continuously implementing a method for reconstitution of a 3D model on this sliding window.

21. The apparatus according to claim 18 wherein the means for processing comprise:

means for continuously memorizing or storing a sequence of 2D images corresponding to a number of images necessary for reconstitution of a 3D model on a sliding window; and

means for continuously implementing a method for reconstitution of a 3D model on this sliding window.

22. A method to determine a set of functional parameters using a radiography device of the type comprising means for providing a source of radiation, means for recording facing the source, the source and the means for recording being installed on a mobile support capable of moving with respect to means for supporting an object placed between the source and means for recording, and on which the object with a region of interest to be imaged will be placed, comprising:

- a) moving the support following a given movement with respect to the means for support, repeated during a given time;
- b) acquisition by the means for recording of a series of images of the region of interest during movement of the mobile support with respect to the means for support;
- c) reconstitution of a series of three-dimensional models of the region of interest, starting from a series of acquired images;
- d) determination of all functional parameters associated with the region of interest, starting from the series of three-dimensional models.
 - 23. The method according to claim 22 wherein step d) comprises:
- d1). choosing a region of interest at a blood vessel in one of the threedimensional models;
 - d2). determining an arterial input function at the chosen region of interest;
- d3). deconvoluting a signal with an intensity variable with time using the arterial input function, on each voxel common to three-dimensional models in the series, and
 - d4). determining a residual impulse function to calculate functional parameters.
- 24. The method according to claim 22 wherein the mobile support is driven along a sequence of half rotations, alternately in one direction and in the other direction, around the means for supporting the object.
- 25. The method according to claim 23 wherein the mobile support is driven along a sequence of half rotations, alternately in one direction and in the other direction, around the means for supporting the object.
- 26. The method according to claim 15 wherein the mobile support is driven so as to apply a repetitive conical movement of revolution to an axis passing through a focal point of the source and through the center of the means for detection.

- 27. The method according to claim 23 wherein the mobile support is driven so as to apply a repetitive conical movement of revolution to an axis passing through a focal point of the source and through the center of the means for detection.
- 28. The method according to claim 22 wherein the mobile support is driven following a continuous repetitive rotation movement around the means for supporting the object.
- 29. The method according to claim 23 wherein the mobile support is driven following a continuous repetitive rotation movement around the means for supporting the object.
- 30. The method according to claim 22 wherein a sequence of 2D images is continuously memorized or stored, on a sliding window, corresponding to a number of images necessary for reconstitution of a 3D model, and processing is applied for continuous reconstitution of a 3D model on this sliding window.
- 31. The method according to claim 23 wherein a sequence of 2D images is continuously memorized or stored, on a sliding window, corresponding to a number of images necessary for reconstitution of a 3D model, and processing is applied for continuous reconstitution of a 3D model on this sliding window.
 - 32. A radiography device comprising: means for providing a source of radiation; means for recording facing the source;

the source and means for recording means being placed on a mobile support capable of moving with respect to means for supporting an object disposed between the source and the means for recording on which the object with a region of interest to be imaged will be positioned;

means for control comprising means capable of moving the mobile support following a movement applied with respect to the means for support; and

means for processing,

the means for control and the means for processing are capable of implementing a method according to claim 22.

33. A radiography device comprising: means for providing a source of radiation; means for recording facing the source;

the source and means for recording means being placed on a mobile support capable of moving with respect to means for supporting an object disposed between the source and the means for recording on which the object with a region of interest to be imaged will be positioned;

means for control comprising means capable of moving the mobile support following a movement applied with respect to the means for support; and

means for processing,

the means for control and the means for processing are capable of implementing a method according to claim 23.